Mandsaur University
Department of Mechanical Engineering

Program Educational Objectives (PEOs)

PEO-1 Plan, design, construct, maintain and improve mechanical engineering systems that are technically sound, economically feasible and socially acceptable.

PEO-2 Apply analytical, computational and experimental techniques to address the challenges faced in mechanical and allied engineering streams.

PEO-3 Communicate effectively using conventional platforms as well as innovative / online tools and demonstrate collaboration, networking & entrepreneurial skills.

PEO-4 Exhibit professionalism, ethical attitude, team spirit and pursue lifelong learning to achieve career, organizational and societal goals.

Program Outcomes (POs)

PO-1 Engineering knowledge: Apply the knowledge of mathematics, science, engineering and technology to the solution of complex mechanical engineering problems.

PO-2 Problem analysis: Identify, formulate, review existing literature, and analyze complex engineering problems to reach substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO-3 Design/Development of solutions: Design solutions for mechanical engineering problems and design system components or processes that meet the specified needs with appropriate consideration for societal, economical and environmental considerations.

PO-4 Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex mechanical engineering activities with an understanding of the limitations.

PO-6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

PO-7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO-8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO-9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-10 Communication: Communicate effectively with the engineering community and with society at large, including the ability to comprehend, create effective reports, make effective presentations, and give and receive clear instructions.

PO-11 Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO-12 Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

PSO-1 Apply mechanical and interdisciplinary knowledge to analyze, design and manufacture products to address the needs of the society.

PSO-2 Apply state of the art tools and techniques to conceptualize, design and introduce new products, processes, systems and services.